

## TRANSACTIONS OF THE NEW YORK SURGICAL SOCIETY.

*Stated Meeting, December 13, 1893.*

ROBERT ANBE, M.D., President, in the Chair.

### HALSTEAD'S METHOD FOR THE RADICAL CURE OF HERNIA.

Dr. CHARLES MCBURNEY presented a man who had been operated for the radical cure of an indirect inguinal hernia six weeks before, by Halstead's method, for the purpose of showing one or two things. First, that the cord had suffered no constriction at all. Second, that the existence of the cord outside the aponeurosis of the external oblique had given rise to no inconvenience or particular sensations. The vessels in the scrotum are not distended at all. The patient was kept in bed four weeks after the operation, union was primary, although the cord had been very freely handled, as it necessarily is in this operation.

Replying to an interrogatory by the president, whether he preferred that the patient wear a truss after this operation, Dr. McBurney said that he never put a truss on after an operation which he believed at the time would effect a cure. The pressure of a truss was unfavorable.

### COMPOUND INTER-CONDYLOID FRACTURE OF THE HUMERUS.

Dr. F. W. MURRAY presented a man who was admitted to the New York Hospital on June 30 of this year, having been injured by falling a distance of fifteen feet from a scaffold, striking on the back of the left elbow. When first seen, twenty-four hours after the accident, the soft parts were greatly swollen and lacerated, and behind and to the inner side of the elbow was a wound where the upper fragment had perforated the skin. On enlarging the wound there was found a transverse fracture passing a short distance above the condyles, and from the centre of this transverse line a vertical fracture,

extending into the joint. The external condyle was drawn upward in front of the shaft, the internal condyle was displaced inward by the olecranon which was wedged upward between the condyles. An attempt to save the joint was made as follows: An incision, two and a half inches long, was made over and exposing the external condyle, holes were drilled through the shaft and the external condyle, a strand of kangaroo tendon was passed through the holes and tied, and the external condyle was thus brought into position. The olecranon was then drawn downward into place, and the internal condyle reduced. With the aid of an aneurism needle a strand of kangaroo tendon was passed through the outer wound, behind the condyles, then around the internal condyle, and then in front back to the point of entrance. The ends were tied over the external condyle, and thus the internal condyle was held firmly in place. Wounds left open and packed with iodoform gauze, sterilized dressing, right angle splint. Outer dressing renewed on third day, but the iodoform gauze was left in until the eleventh day. Healing was uneventful, the wounds closed by the fifth week, passive motion began at the end of the fourth week. The result is extremely satisfactory, flexion and extension nearly perfect, supination and rotation completely so. The arm is nearly as strong as before the accident, and the man is again working at his trade. The elbow was treated in the flexed position, as, in case of ankylosis resulting, the arm would be vastly more useful than if in an extended position.

#### ANEURISMAL VARIX OF THE HAND.

Dr. ABBE presented a boy, nine years of age, with an aneurismal varix, occupying the ring, the middle, and index fingers, as well as the palm and dorsum of the hand. When a baby, a small *nævus* was first noticed on the dorsum of the middle finger near the middle joint. This remained quiescent many years, but afterward grew a little larger. About a year ago, he sustained a deep cut with a knife at the base of the thumb; soon afterward the *nævus* degeneration took on a rapid enlargement, until now it has attained the marked dimensions shown in the photograph. (Fig. 1.) The fingers have become several times larger than normal. There is a thrill at the base of the thumb, and apparently a connection between the artery and veins at that point, from which point, also, the rapid invasion of the neighboring parts started. There is undoubtedly some increase



FIG. 1.—Dr. Abbe's Case of Aneurismal Varix of the Hand.

in the size of the radial artery all the way up the arm, but it is likely that this is only coincident with the increased supply of blood demanded by the finger enlargement. There is no question in the family about the rapidity of the growth during the year since the accidental cutting, yet it is not possible to say that there was no connection between the arterial and venous plexuses before that time. It was not a mere puncture, but a free cut which occurred, and if there had been a varicose condition at this site, then it seems he would have bled to death. The inference is just, therefore, that the angioma did not extend so high up at the time of the injury.

Dr. ARPAD G. GERSTER inquired whether it was entirely beyond doubt that the present condition of this hand was induced by the injury one year previous. The statements of patients and relatives are not always entirely reliable. It seemed to him, since there was no very serious hæmorrhage at the time of the injury, that a wound of the arterial trunk could be eliminated. To be sure, it cannot be denied that a traumatism of any kind might induce changes like these, yet the proof of such a fact in this case has not been brought out.

As regards the pathological character of the condition present, it has been called by the president an aneurism. But he would not be so ready to subscribe to that diagnosis. If it were an aneurism, it would be pulsating, and a very distinct bruit would be heard along the continuation of the radial artery. Yet as those signs would be present in any case where the artery had rapidly enlarged, he would not regard them as sufficient to justify the expression aneurism. It seemed to him that this case belonged rather to the order of arterio-venous angiomata, a condition very frequently congenital and growing with the growth of the individual, involving not only the vessels which form the substratum of the condition, but all the tissues, even the skeleton of the parts affected. He had observed and operated upon a number of such cases, one of which he described: it occurred in a child, one entire lower extremity, up to the buttock, being involved. Ultimately the veins became thrombosed, and very severe attacks of phlebitis occurred, accompanied by high fever and serious interference with the circulation of the limb, so that superficial gangrene of the skin developed in several places. In order to ward off a possible fatal complication which was threatened in this manner, he finally amputated the limb through the diseased tissues. The vascularity of the cut surface was so great that he had, according to the statement of Dr. Kinloch, of Charleston, who assisted him, to

deligate about seventy-five arteries, yet the surface was still practically a spongy opening which would have caused fatal hæmorrhage the moment constriction was removed. In order to secure against the possibility of secondary hæmorrhage, he resorted to the plan of closing the entire surface by buried sutures, commencing at the periosteum and going out to the skin. The wound healed by first intention, and the girl is still alive and doing very well—seven years after the operation.

In another case, that of a boy, eleven or twelve years of age. the degeneration being limited to the toes, foot and heel, the external iliac artery was first ligated, and, as a consequence, rather extensive gangrene of the integument in the vicinity of the malady and of the bellies of both peroneal muscles developed, and the boy's foot had to be amputated. He finally recovered. In that case there was thickening of the dermal layer, so that certain portions of the foot had an appearance of ichthyosis. The extremities were inclined to be cold; the vessels, however, were very well marked, and there was a distinct bruit in all the arteries leading down to the foot, and the veins were all enlarged exactly as in the case presented by Dr. Abbe. The skeleton in both cases was decidedly enlarged, as ascertained by exact measurement.

Dr. ABBE rejoined that he had himself operated upon one case successfully which resembled very closely the one now before the Society. The whole arm was involved from the hand to the shoulder, presenting a sponge-like appearance, but there was not the bruit nor the history of traumatism with more or less rapid increase afterward. Were it not for the very local aneurismal thrill at a point quite near the scar in this hand, he would have thought this to be simply an angiomatous condition, but under the circumstances he preferred to class it under the head of aneurismal varix,—not varicose aneurism,—believing there is a connection between a rather large artery and a venous trunk close to the massive enlargement. The bruit can be heard over the entire mass with the stethoscope, but loudest at the seat of injury.

With regard to treatment, he tried several methods in the other case just referred to, resorting to excision of a part, and to actual cautery, and a cautery with the wire loop in other parts, cutting through the mass in planes with the cautery wire. He also tried Roser's method with stypic setons suggested by Professor Esmarch, who witnessed the cautery operations. But in a case like the present one he

would be inclined to cut down upon the point of apparent anastomosis and excise that portion. He intended also to try the Roser's method again.

Dr. MCBURNEY said that as regards the diagnosis, he believed the case to be an aneurismal angioma, largely aneurismal. The traumatism might have divided an artery which opened into the spongy-like tissue or venous channels, but one would hardly call that a communication between a vein and artery. With regard to treatment, one would find it very difficult to ascertain the point of communication in such a case. There is, to be sure, technically, a communication between the venous and arterial systems, but one which would not be found during an operation. He would think that if any minor operation would do good, it would be ligation of the principal artery supplying the parts, but would not expect much from that, since if the blood were shut off from the radial artery it would probably find its way through the ulnar, or *vice versa*, or through the accompanying artery of the median nerve.

#### THE OPERATIVE TREATMENT OF CLUB-FOOT.

Dr. HARTLEY read the paper upon "The Operative Treatment of Club-Foot." (See page 257.)

Dr. WILLY MEYER presented a man, twenty years of age, on whom he had operated for marked varus at the age of sixteen. In addition to the bone operation he divided the tendo Achillis and plantar fascia. The deformity was congenital. The patient walked at present flat on the sole, and was ready to discard mechanical apparatus.

Dr. V. P. GIBNEY presented the following cases in illustration of the results obtained by operations in club-foot:

CASE I.—Joseph B., aged ten, came under treatment for extreme degree of club-foot, congenital, about two and a half years previous. The astragalus was removed, subsequently repeated stretchings, under ether, Thomas club-foot wrench being employed, later still the Wolff method. Result thus far not quite satisfactory, and a supramalleolar osteotomy is to be done on the right foot. Left foot is about perfect.

CASE II.—Katie K., a girl twelve years of age, has had repeated stretchings, numerous tenotomies and fasciotomies; finally, about a year and a half ago, removal of astragali, with subsequent stretchings, and is now, for the past six months, cured.

CASE III.—Miss A., seen first in December, 1887; aged twenty-one; extreme degree of club-foot, typical reel-foot; operation on Christmas day, 1887, Dr. Poore assisting; wedge-shaped piece removed from os calcis on right side down to near articular surface, about an inch in width; also wedge-shaped piece from the astragalus; being unable to get the foot straight, divided the deltoid ligament; being still unable, made an open incision on inner side of foot, cutting everything in reach; still not succeeding, took out more bone on outer side, and finally got the foot in what seemed to be an ideal position; considerable sepsis followed. In February the left foot was operated upon, Dr. Bull assisting; practically the same operation, encountering the same obstacles; an inch and a half wedge was removed; the wound healed primarily on this occasion; the result was excellent. The patient has been able to walk with convenience, and now makes her living by treading the organ with her feet. A shoe of special make is worn. This lady has no pain, can walk long distances, and requires very little attention in the way of shoe support. Does not wear any braces.

CASE IV.—Theodore U. was admitted May 11, 1891, having been at one time an out-patient, and the history is that a tenotomy on him was done in 1887. After that he came under the care, so reported, of Dr. Phelps, in 1889. The report further states that Dr. Phelps operated upon him, and the cicatrices at the time of his admission showed that some one had done the Phelps operation. He came into the Hospital for Ruptured and Crippled for relapsing club-foot.

On the 5th of May his astragalus was removed from the left foot, and the tendo Achillis divided at the same time. On the right foot the tendo Achillis simply divided. The feet were put in excellent position at the time of the operation, and plaster of Paris was employed to retain the good position. In the hospital he relapsed a little, and it was necessary, July 31, to employ manual force under ether to correct again.

On the 21st of August nitrous oxide was administered and manual force employed, both feet. Put up three weeks afterwards in club-foot shoes, and discharged June 30, wearing the Knight club-foot shoes.

He was readmitted December 2, 1892. The feet were still inclined to turn in and roll to the outer side, and, under ether, the Thomas wrench was employed, leaving the feet in calcaneo-valgus.

On the 21st of January, 1893, braces were applied.

April 1, 1893, while still in hospital, it was found that he turned a little again, and the Wolff method was instituted. This was employed up to the 20th of May, and discontinued on account of excoriations. On the 21st of July the Wolff method was resumed. On the 22d of August very little had been accomplished, and under ether manual force was again resorted to. On the 11th of October it was thought that there was some improvement, the Wolff method having been employed immediately after the administration of ether, on August 22. October 25 we were not satisfied with his condition, and a supramalleolar osteotomy was done subcutaneously.

Only to-day the plaster dressing has been removed. The final result is yet to be determined.

Dr. GIBNEY approved of Dr. Hartley's determination to get the foot straight at all hazards. Some operators limit themselves to the method which cuts through the cuboid and scaphoid; some cut the os calcis alone; others think removal of the astragalus will meet every indication, and stop there; others limit themselves to open section of resisting soft tissues; but the surgeons at Roosevelt Hospital have been bound down by no hard and fast rule, but to remove any bone which would relieve the deformity,—taking out the astragalus, making the double cuneiform operation, and dividing everything offering resistance,—aiming to get the foot into a position in which the patient could walk upon it without the use of apparatus. Most patients operated upon by surgeons who have a pet method go about afterwards with some form of apparatus.

Dr. MCBURNEY remarked that, although the operation in these cases may look somewhat formidable, yet his recollection was that in none of the cases at Roosevelt Hospital during the last five or six years had there been a disagreeable result; that is, no suppuration or chronic disease of bone had followed. Another important point is the enormous saving of time which is implied in the operative treatment. This is particularly important to the young individual whose development would be interfered with if he were compelled to wear apparatus for many years. Were a successful operation performed the patient would soon recover, and be able at a much earlier period, than if mechanical treatment alone were applied, to walk, play, and live like other children.

One of his patients was a child which had been treated six years by a skilful orthopædic surgeon, who, however, had limited himself to



tenotomies and mechanical apparatus. Keeping a child in apparatus for so long a period, meanwhile subjecting it to a number of tenotomies, would be found to have an important bearing upon the mental, moral, and physical development. Another point of very considerable importance, and which again endorsed the position taken by the author, was the matter of expense. He did not mean expense to the patients, for a great many of them were treated free, but expense to the institution, to the surgeon, and to the community at large.

#### TUBERCULOSIS OF THE BLADDER—SUPRAPUBIC CYSTOTOMY.

Dr. PILCHER presented the genito-urinary tract of a man, twenty-five years of age, the history of which was as follows: He had been admitted to the Methodist Hospital in Brooklyn, coming from the interior of New York State, for the relief of a severe chronic cystitis. He was much emaciated, and had much cough, but the severity of his bladder symptoms were such as to dominate everything else. This condition had lasted for more than a year.

A cystoscopic examination showed extensive ragged ulcerations of the bladder mucosa, but was soon embarrassed by the bleeding provoked by it. By rectal examination a thickened condition of the vesiculæ seminales was well defined. Examinations of the urinary deposits for the bacillus of tuberculosis were made, but with negative results.

A far-advanced pulmonary tuberculosis was evident, and that the disease of the bladder was tuberculous was extremely probable.

The patient, after a few days' observation, was accordingly subjected to suprapubic cystotomy, in which operation Dr. Pilcher, for the first time, resorted to inflation of the bladder with air instead of dilating it with water injected into it, at the same time doing away with the use of the rectal colpeurynter, according to the method suggested by Dr. Bristow, of Brooklyn. The effort succeeded admirably. The bladder, easily blown up, was at once lifted up prominently above the symphysis, and the usual suprapubic incision was more than usually facile in its doing. Post-mortem examination of the bladder showed another advantage to have been gained by this air-inflation in this particular case, for the bladder was the subject of two very thin-walled diverticula which might readily have been ruptured by the pressure of a fluid-injection; moreover, the whole blad-

der had lost so much of its tone as to be like a flaccid bag, with but little expulsive power.

The weak condition of the patient made unwise any extended inspection of the bladder after it was opened, and the reporter contented himself with a simple digital exploration of it, which revealed a diffused granular degeneration of the mucosa; it was then thoroughly washed out and an iodoform gauze tampon placed in it, the end of the tampon being brought out through the suprapubic opening; this was withdrawn on the third day; daily irrigations of the bladder were practised thereafter. Twice weekly a half an ounce of a ten-per-cent. iodoform emulsion was injected into the bladder and permitted to remain. From the time the opening into the bladder was made until his death no longer did his bladder symptoms play any important part in his condition. He continued, however, steadily to sink and waste from his pulmonary disease, and at the end of six weeks died.

The post-mortem examination revealed a diffuse tuberculosis of both lungs and of the intestines, and of the bladder as presented. The bladder specimen shows a diffuse granular condition throughout its whole extent except at the trigone, whose surface was smooth and reddish, with depressed areas apparently from recently-healed ulcerations. The ureters, however, are free from disease, nor is there any involvement of either kidney. On either side of the bladder a loop of small intestine is adherent to it, and by long traction the bands of adhesion have been elongated into cords of some length, and a diverticulum from the lateral wall of the bladder has been developed.

#### HOOR-GLASS GALL BLADDER.

Dr. PILCHER also presented a specimen which he said was chiefly of interest in connection with the case of hour-glass gall bladder presented at the last meeting of the Society by Dr. Hotchkiss. (See page 197.) The patient had died in his service after an operation for relief of strangulated umbilical hernia. At the autopsy he found an hour-glass gall bladder, the upper part of which contained a calculus which distended it, while the lower part, smaller in size, separated from the upper by a distinct constriction, contained glairy, flocculent fluid. He showed the specimen as suggesting an explanation for the condition present in Dr. Hotchkiss's case, where the gall bladder was divided into two portions by a thick constricting band.

In the specimen just presented the dividing band consisted apparently of new inflammatory tissue which may have developed through irritation set up by the calculus, the latter occupying one end of the gall bladder, the more distended end, and fluid occupying the other end. He could easily imagine how, by continued action of this force, greater dilatation might have taken place, with further irritation and contraction of the constriction band until the gall bladder would have presented two well-defined sacs communicating with each other by a comparatively narrow aperture.